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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,136	03/23/2004	Piet Van Dine	64373.001001	1969

21967 7590 01/03/2007

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EXAMINER	
POULOS, SANDRA K	
ART UNIT	**PAPER NUMBER**
1714	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/806,136	VAN DINE, PIET	
	Examiner	Art Unit	
	Sandra K. Poulos	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31 and 43-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31 and 43-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. All outstanding rejections and objections except for those described below are overcome by applicant's amendment filed 10/11/06.

Upon consideration of applicant's arguments, the rejections set forth in the action mailed 7/24/06 have been reconsidered and the following new grounds of rejection have been set forth below. Accordingly, the following action is a 2nd NON-FINAL.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 43-47, 50, and 53 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 43-47 and 50 now recite "wherein the composite material has a tensile strength greater than about 30 ksi and a compressive strength greater than about 20 ksi". It is the examiner's position that this phrase fails to satisfy the written description requirement of 35 USC 112, first paragraph since there does not appear to be a written description requirement of the compressive and tensile

strength values in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163. While there is support for a tensile strength of 32.5 ksi and a compressive strength of 19.7 ksi in Table 14 of the specification, there is not sufficient support for all tensile strength values greater than 30 ksi and all compressive strength values greater than 20 ksi.

Claim 53 now recites that the motor shaft comprises "a tubular body; and a connector fitting". It is examiner's position that this also is new matter because the specification (paragraph 53) discloses that the tubular body is connected to *two metal* connector fittings, and not a single connector fitting, as currently claimed.

Claim Rejections - 35 USC § 102/103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 3-5, 7, 9, 11-16, 18-20, 22, 24, 26-31 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 10-324762 in view of the evidence by Plastic Additives or Fire Retardant Materials.

The rejection is adequately set forth in paragraph 4 of Office action mailed 7/24/06 and is incorporated herein by reference.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 2, 5, 8, 11-17, 20, 23, 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-351881 in view of the evidence in Plastic Additives or Fire Retardant Materials further in view of JP 10-324762.

JP 881 discloses a flame retardant resin composition and molded article made thereof which contains a styrene resin, glass fibers, glass powder, red phosphorous with aluminum hydroxide (abstract). Plastics Additives discloses that aluminum trihydroxide is often referred to as alumina trihydrate (pg 288-290); Fire Retardant Materials discloses that alumia trihydrate actually does not have water of hydration in its structure and is thus aluminum hydroxide (pg 56). The composition further contains phenolic resins (abstract), particularly novolak resin (para 33). A novolak is an acid catalyzed phenolic resin. The molded composition can be used in several applications motor components and automotive applications (para 59-60).

JP 762 discloses the composition in paragraph 3 above. The composition contains phenolic resin, aluminum hydroxide, and glass fiber. The amount of aluminum hydroxide is 8 to 33% based on the total weight of the composition. It would have been obvious to one of ordinary skill in the art to incorporate aluminum hydroxide in the amount disclosed by JP 762 because both compositions have similar components and the aluminum hydroxide in JP 762 is present in an amount sufficient to show good fire retardant properties.

Although JP 881 is silent with respect to the ASTM E-1354 properties for the noncombustible composition, absent evidence to the contrary it is examiner's position that JP 881 would inherently meet the claimed properties since contains the same amount of ATH as currently claimed, or alternatively, the presently claimed properties would obviously have been present in the JP 881 product.

It is noted that claims 11 and 26 are product-by-process claims and therefore "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Claims 11 and 26 disclose various methods of molding and the JP 881 discloses composition as being extrusion, injected or compression molded (para 59). Examiner's position is that the various types of molding do not result in a materially different fire resistance composite or structural part, thus the molded composition in JP 881 is the same as that currently claimed in claims 11 and 26.

Furthermore, the intended uses of the structural component in claim 28 does not make the claims patentably distinct from that in JP 881 because case law holds that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the

prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

5. Claims 6 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 881 in view of JP 762 as applied to claims 1, 2, 5, 8, 11-17, 20, 23, 26-31 above, and further in view of JP 05162224.

JP 881 and JP 762 in paragraphs 3 and 4 above are incorporated herein by reference.

Although the above references disclose glass fibers, they do not disclose 63 to 77% glass fibers.

JP 224 discloses a heat insulating board that is excellent in flame retardancy and contains a resol-type phenolic resin and aluminum hydroxide with 65% glass fiber (abstract).

It would have been obvious to one of ordinary skill in the art to use 65% glass fiber in the JP 881/ JP 762 composition because all of the composition have substantially similar components and JP 224 shows good flame resisting properties for use of that amount of glass fibers.

6. Claims 10 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 881 in view of JP 762 as applied to claims 1, 2, 5, 8, 11-17, 20, 23, 26-31 above, and further in view of Itagaki et al (US 2001/0018487).

JP 881 and JP 762 in paragraphs 3 and 4 above are incorporated herein by reference.

The above references do not disclose that the fire resistant material additionally contains a siloxane modifier.

Itagaki discloses a flame retardant composition for use in molded parts (abstract). The resin should be an aromatic polymer; examples of the resins used are novolak phenolic resins (para 26). In molding the composition of the invention, any of well-known molding methods such as injection molding extrusion molding compression molding and vacuum forming may be used (para 56). It would have been obvious to one of ordinary skill in the art to incorporate the siloxane additive into the compositions in JP 881 because the siloxane additive gives the resin composition good flame retardance and drip inhibition, maintains optical transparency, and can be recycled for reuse (para 20, 29, 30).

7. Claims 48, 49, 51, 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied in the immediately preceding paragraph and further in view of Baig (US 6,443,256) and Ålander (US 5,586,418).

The above references do not disclose (1) a fiber rich surface layer or (2) a structural element with beam support members and a transverse tie bar.

Regarding (1) Baig discloses structural comprising a bat mat layer and the fiber-rich surface layer (col 3, lines 18-20). Other ingredients included are flame retardants (col 4, lines 55-59). It would have been obvious to one of ordinary skill

in the art to use the flame retardant composition of JP 881 and JP 762 in the structure of Baig in order to increase it's flame retardancy.

Regarding (2) Ålander discloses a composite construction which has reinforcement bars parallel to the longitudinal direction of the beam part, the bars being tied with transverse bars (claim 6). The construction should be resistance in a fire situation. Given that it should be flame resistant, it would have been obvious to one of ordinary skill in the art to use the flame retardant composition in JP 881 and JP 762 above in the construction structure in Ålander in order to increase the flame resistance.

Response to Arguments

8. Applicant's arguments filed 10/11/06 have been fully considered but they are not persuasive.

Applicant argues that the references would not inherently meet the currently claimed properties, nor alternatively, the presently claimed properties would not obviously have been present in the references products. Applicant has pointed to Table 6 as support. The data therein are not found persuasive. The amount of ATH claimed ranges from about 7-12% and Table 6 shows that ATH is ineffective when at amount of 20-30% and does not meet the currently claimed properties. However, the above references teach ATH in the effective range and therefore it is considered that they will have the currently claimed flame retardant properties.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra K. Poulos whose telephone number is (571) 272-6428. The examiner can normally be reached on M-F 8:00-4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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